Integration & Calibration Beam Test Subcommittee

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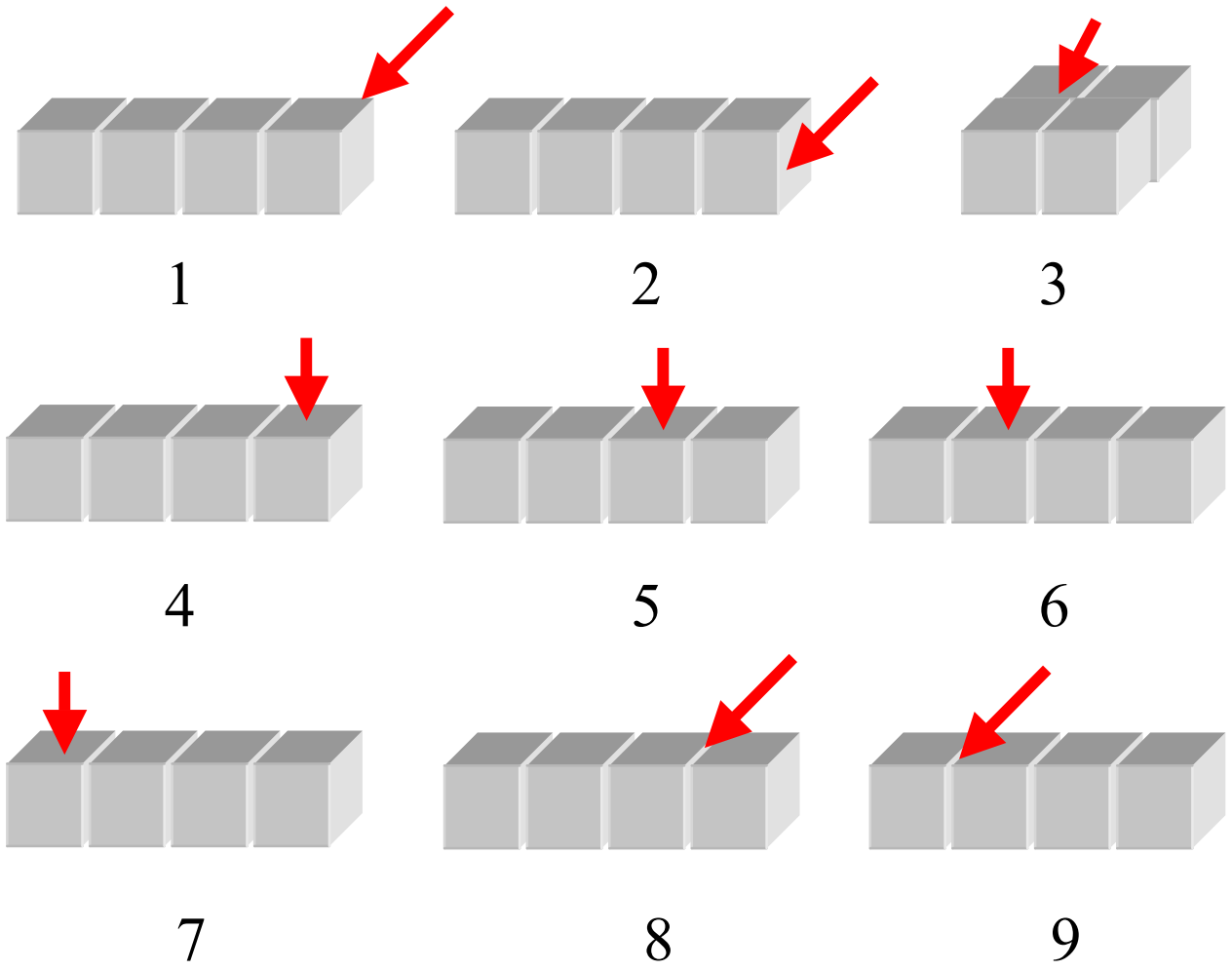
Photon Beam configurations



Photon Beam Run Time

(8 months ! Assume 5000 photons per bin
but there are obvious ways to descope…)

1. 4 energies and 5 polar angles , 0 azimuth , impact point with respect to the top corner of the tower at the end of the 1 x 4 stack = 5 x 188 = **940** hours of beam.
2. 4 energies and 5 polar angles , 0 azimuth , impact point 30 cm (TBR) below the top corner of the tower at the end of the 1 x 4 stack = 5 x 188 = **940** hours of beam.
3. 4 energies and 5 polar angles , 22.5 azimuth, impact point with respect to the top corner of the tower at the center of the 2 x 2 stack = 5 x 188 = **940** hours of beam.
4. 4 energies and 1 polar angles (0), 0 azimuth, impact point at center of tower 1 = **188** hours of beam.
5. 4 energies and 1 polar angle (0) , 0 azimuth , impact point at center of tower 2 = **188** hours of beam.
6. 4 energies and 1 polar angles (0), 0 azimuth , impact point at center of tower 3 = **188** hours of beam.
7. 4 energies and 1 polar angles (0), 0 azimuth, impact point at center of tower 4 = **188** hours of beam.
8. 4 energies and 3 polar angles (20,40,60), 0 azimuth , impact point at the center of first two adjacent towers 1 x 4 stack or 2 x 2 stack = **564** hours of beam.
9. 4 energies and 3 polar angles (20,40,60), 0 azimuth , impact point at the center of last two adjacent towers 1 x 4 stack or 2 x 2 stack = **564** hours of beam.

Cosmic Ray Telescope

1. We found a large size telescope (@ SLAC) that can probably be suitable for the LAT flight instrument

2. Now we are motivating the cosmic ray tests in the light of science requirement parameters and verifying when the set up will be available to us.

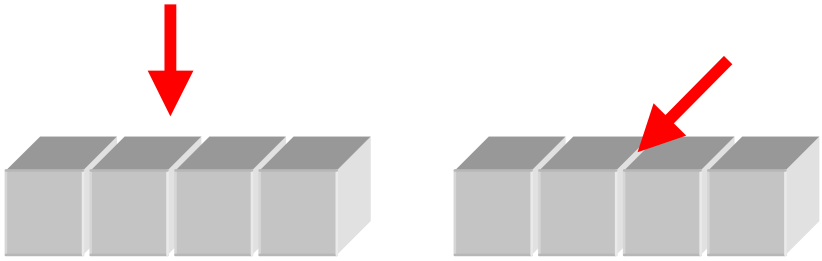
3. Need input from DAQ and GSE (and software) to evaluate what is a support equipment and how does that fit in schedule

Engineering Model in a beam ? Not yet clear…

1. We are coming up with a plan for calorimeter measurements at a high energy and low beams and investigating what kind of "tracking" instrument they can find. After that we will consider whether to include or not some tracker trays (3 or 4) in the same test

2. Need input from DAQ and GSE (and software) to evaluate what is a support equipment and how does that fit in the schedule

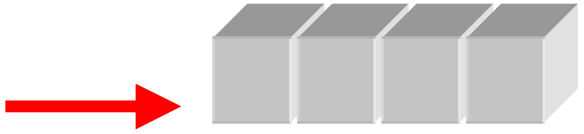
Hadron Beam Configurations



1

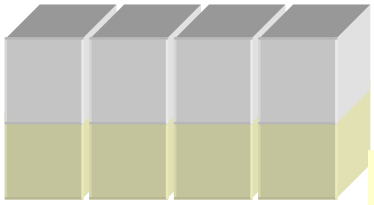
2

We are concerned with MC validation for low energy protons



Incident beam on the Calorimeter

3



Simulated Spacecraft material

4

hadron background is widespread over the LAT so when we focus on smaller regions the rejection factor need not be to large ? Still under discussion…

Priorities for next 2 weeks

1. Coherent Photon beam – tagger, multiple photons, energy, SLAC plans, readjust photon beam test matrix
2. Calorimeter plan for high energy tests- how does tracker and ACD fit in, support from GSE (DAQ+software)
3. Mechanical fixtures- 1x4, 2x2, cosmic ray tests
4. Hadron beam – build test matrix
5. Need to focus on electron beam and timing issues